Summary of Hazardous Waste Handling Practices

Hooker Chemicals & Plastics Corp.
Tacoma, Washington

BACKGROUND

In December, 1978 the State of New York made a press release regarding Hooker Chemicals and Plastic Corp. and their hazardous waste problems in New York in which an affidavit by Mr. Randy M. Mott, in support of the Mead Corporation, was released. The purpose of the affidavit was to prevent a take over of Mead by Occidental Petroleum (owner of Hooker) by detailing hazardous waste problems at various Occidental controlled facilities.

One Region 10 facility, Hooker Chemicals and Plastics at Tacoma, was mentioned in the affidavit. It charged that Hooker has "... discharged chlorinated hydrocarbons into Hylebos Waterway, dumped a variety of chemical wastes into the Puget Sound, and began dumping hazardous wastes in two pits in the vicinity of the employee's parking lot at the Hooker plant in the early 1970's." The source of the information was referenced as an August 25, 1978 memorandum from C.W. Virgil, Tacoma Works Manager to A. Katona. The affidavit also stated that organically contaminated sediments were found and that the plant was not meeting pH limits in its waste discharge.

On January 5, 1979, Region 10 sent a formal request for information to Hooker under Section 308 of the Federal Water Pollution Control Act and requested copies of the Virgil memo referenced in the affidavit, as well as other pertinent information dealing with disposal of hazardous wastes. The company complied and submitted the requested information on February 6, 1979.

In general, Hooker appears to have disposed of its wastes within the laws and regulations existing at the times of disposal. Discharges into water have been under state issued permits since before 1958. They currently have an NPDES permit for discharge of effluent to Hylebos Waterway issued by the Washington State Department of Ecology and have been involved in enforcement actions with the DOE relating to effluent pH violations.

Disposal of sludges was generally done after informing the appropriate authorities involved, although brine sludge may have been disposed in deep water without the State's knowledge. Dredge spoils were handled by the dredging contractors and it was assumed by Hooker that the contractors had made the appropriate arrangements.

DISPOSAL ACTIVITIES

Based upon the information submitted, the following is a brief summary of the hazardous waste disposal activities at the Hooker facility:

(1) Generator lime and stripper lime (consisting of dissolved calcium chloride, excess lime, inert organic solids and high boiling chlorinated organics) were produced from the solvents plant which began production in 1947. The generator lime came from the acetylene production facility which utilized calcium carbide and the stripper lime came from the steam stripping operation.

From 1947 to 1952 the wastes were discharged to Hylebos Waterway and, in the latter part of that period, to ponds located in the area now occupied by the salt pad. The solids were dewatered by decanting the liquid in the ponds to Hylebos Waterway. Accumulated solids were trucked to unknown disposal sites. No file information is available to identify the sites. Ponding was terminated in 1952.

From 1952 until 1972, the wastes were disposed by barge in deep water in Commencement Bay. Beginning in January 1972, the wastes were discharged into two pits excavated near the employee parking lot. Liquid was decanted to Hylebos Waterway. Through April 1972, the City of Tacoma hauled the solids from the pits to the municipal landfill; however, they ceased this service because the solid were to "sloppy" to handle.

The Burrows Construction Company was then contracted to dispose of the material. The sludge was removed and dumped at three different sites (locations known) until 1975. In May 1973, the solvents operation was terminated; however, the pits continued to be used for disposal of brine sludge and other process sludges.

(2) Chlorinated organics were discharged from the chlorine process to Hylebos Waterway beginning in 1929. In 1969 or 1970, discharges from the chlorine purifier were eliminated, thereby removing 50 to 75 gpd of low boiling chlorinated organics (chloroform, carbon tetrachloride, and hexachlorethane). The higher boiling chlorinated organics continue to be discharged from the stripping section.

Hooker indicates they are presently attempting to identify the major constituents in this waste stream and determine the daily rate of disposal.

(3) Brine sludge (composed primarily of $CaCO_3$ and $Mg(OH)_2$ with small amounts of heavy metals in hydroxide or carbonate forms) from the chlorine process was discharged to Hylebos Waterway from 1929 to sometime between 1965 and 1970. It was then disposed by barge into Commencement Bay with the generator and stripper lime until 1972.

At that time the brine sludge, together with the generator and stripper lime, was disposed in the two pits near the employee parking lot. This practice continued until January 1977, at which time the company began placing the sludge in containers and having it hauled to the municipal landfill.

By late 1977 the pits, last emptied in 1975 (see No.1), were again full. In November 1977, the south pit was emptied and the material disposed in a specially designated area of the municipal landfill. After it was emptied, the pit was filled with gravel and abandoned. The north pit is currently being emptied and abandoned.

(4) Asbestos, originating from the cathode washing operations, was discharged to Hylebos Waterway or dumped on the bank from 1929 to 1971. At that time the bank dumping was terminated and all asbestos was discharged until 1972 or 1973. A filter was installed and all filtered asbestos was disposed in the municipal landfill. Asbestos bypassing the filter was combined with brine sludge for disposal. In a memo written by L.D. Feller of Hooker on July 30, 1971, it was estimated that 2 cubic yards per day of asbestos were dumped on the bank during the previous year.

(5) Calcium chloride sludge (composed primarily of calcium chloride, calcium sulfate and small amounts of calcium hydroxide and heavy metals in hydroxide and carbonate form) is formed during calcium chloride production, which began in 1947. Waste liquid is recycled and the sludge is disposed in the municipal land fill.

(6) Dredge spoils, in the period preceding 1974, were disposed at unknown sites by the contractors performing the dredging. During 1974 dredged material was disposed in an unidentified tide flats area referred to as Site VI. Analysis of eleven samples obtained from this operation showed chlorinated hydrocarbons to be present in three samples at levels of 623, 731 and 120 ppm.

(7) Miscellaneous materials (consisting of sludge from caustic soda and chlorine tank and tank car cleaning, brine tank and salt pad cleaning, anode impregnation, fused caustic soda production, etc.) were sewered to Hylebos Waterway until sometime between 1970 and 1975. As discharging of the sludges ceased, the wastes were placed in the two pits near the employee parking lot.

Disposition of the miscellaneous material since the pits have been abandoned is assumed to be to the municipal landfill with the brine sludge.

(8) Trash (consisting of carbon blades, floor sweepings, cell tops, bricks, glass, etc.) was dumped along the Hylebos Waterway bank until October 1971. Since then the material has been collected in a container and periodically taken to the municipal landfill.

SUMMARY

It is apparent that potentially hazardous wastes have been disposed by Hooker Chemicals and Plastics Corp. However, based upon the material submitted by the company, they do not appear to have violated any Federal laws, even though some of the practices would not be considered as suitable today.

At this time there is no evidence of any imminent hazard associated with their past disposal practices. The Department of Ecology has been working with the company and is presently the lead regulatory agency involved.